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(54) MAGNETIC RECORDING MEDIUM AND DEVICE

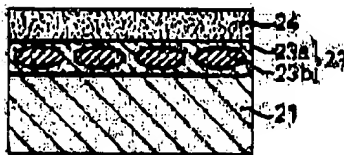
(57)Abstract:

PROBLEM TO BE SOLVED: To increase the coercive force of a magnetic recording medium by forming a magnetic layer on a substrate by uniformly distributing specific Co-Pt crystal grains having a specific average particle size and a specific fcc structure in a thin nonmagnetic film and specifying the product of the remanence magnetization and film thickness of the magnetic recording layer.

SOLUTION: After a $\text{Co}_{100-x}\text{Pt}_x/\text{SiO}_2$ granular film 23 is formed on an Si substrate 21, the surface of the film 23 is covered with a carbon protective film 24.

The recording layer 23 is formed by dispersing fine ferromagnetic $\text{Co}_{100-x}\text{Pt}_x$ ($10 \leq x < 20$) crystal grains 23b having an average particle size of $\leq 150\text{nm}$ in

nonmagnetic SiO_2 23a. At the time of forming the recording layer 23, the value of the product of the film thickness and remanent magnetization of the layer 23 is adjusted to ≤ 150 Gauss. μm . The coercive force of the obtained magnetic recording layer 23 becomes $\geq 1,500\text{Oe}$.



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